fractures without significant increase in operative time or complication rate.

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Femoral reconstruction nail failures following fixation of extracapsular fractures of the hip—incidence, causes and prevention

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The proximal femoral nail is a valuable tool for fixation of extracapsular fractures of the hip. Its position in the medullary canal imparts a biomechanical load sharing advantage over extramedullary load bearing fixation devices. It can also provide stable fixation of subtrochanteric fractures whilst minimising soft tissue trauma, blood loss and risk of wound infections. However, the complication rate associated with this fixation method has been estimated in the literature to be 5–10%. This is associated with both significant patient morbidity and financial expense.

We conducted a retrospective audit assessment of all of the proximal femoral nails (PFNs) performed at the Dorset County Trauma Centre based at Poole Hospital, UK. The audit period ran from June 2008 to May 2009. The hospital's trauma database identified 56 patients who received PFNs for unstable, extracapsular hip fractures. The mean patient age at the time of surgery was 84 years. Approximately equal numbers of short (46%) and long (54%) PFNs were used. In total, 13 (23%) patients experienced complications relating to fracture fixation, including intra-operative breach of the anterior femoral cortex, peri-implant fracture, dynamic screw cut out, locking screw fracture and locking screw back out. 9 of these patients required further surgery with either conversion to total hip arthroplasty (6 patients) or removal of metal work (3 patients). The mean time to recognition of post-operative complications was 8 months.

The tip apex distance of failed PFNs was greater than 25 mm in 62% of patients, compared with only 26% for successful PFNs. Well reduced fractures had a greater success rate (91%), compared with imperfectly reduced (70%) and poorly reduced fractures (60%). There was no significant relationship between failure rates and fracture configuration according to the Seinsheimer classification.

In summary it is clear that in order to minimise the risk of PFN failure, both optimising fracture reduction and tip–apex distance is required, and these factors may have a greater impact on fixation failure than the fracture configuration.

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1B.35

Correlation between MRI and arthroscopic findings in pathology of the menisci: closing the loop with a re-audit

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The purpose of this audit was to assess the sensitivity and specificity of MRI vs Arthroscopic findings for meniscal pathology and compare this to previous results in 2005. The changes with regards to reporter demographics, outsourcing and funding changes were taken into account.

A Retrospective data collection was done for period 01/01/2009–13/08/2009 for patients undergoing MRI pre-

The results showed that the sensitivity had reduced from 94%(2005) to 88%(2009). Specificity however had increased from 90%(2005) to 94%(2009).

3 reports were non-committing of meniscal pathology in the 2009 sample compared to 6 in 2005. Of theses 33% had pathology in 2009 and 50% had pathology in 2005. These changes were thought to be multi-factorial.

There was still a high sensitivity and specificity. The decrease in sensitivity could have been due to poor image quality relating to out sourcing scanners.

This study confirmed that MRI is still an excellent diagnostic tool for assessing menisci and that increasing SpR reporting in our region had no significant impact on accuracy.

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1B.36

Establishing a new trauma and emergency medicine department in a level 1 hospital covering 3 million persons

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In the east of Tehran a level 1 referral university affiliated general hospital with 540 beds is covering about 3 million persons and taking care of about 220–250 patients every 24 h in the trauma and emergency department. It has been approved from 10 years ago that Angelo-American style for emergency medicine and trauma system should be used.

Reaching to this goal demanded changing pattern of management, treatment and education by building two separate sections, Trauma unit and Emergency department close to each other, therefore the medical staff were switched to Emergency Medicine Specialists who have been trained in the united states and another university in Tehran.

The trauma unit has the full facilities such as 2 operating rooms, radiology, sonography and CT scanning, laboratory, CPR and burn room.

The emergency department handles the non traumatized emergent patients, so it has a 6 bed ICU,6 bed CCU,CPR and a 24-bed ward for managing the patients before discharge or transfer to related wards.

The curriculum for treatment and education has been copied from American models but had some modification to work in local situation, in the triage room the patients are sorted by a nurse and according to the etiology and manifestations are treated by a team of emergency medicine specialists and related speciality.

We were able to decrease the mortality rate in traumatized patients from 16% to 9% and increase the successful CPR rates for non injured patients from 42% to 64%.

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1B.37

The fall of IM nail. The changing pattern of tibial shaft fracture surgical management and the impact on training

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Aim: The surgical management of an extra-articular fracture of the tibia can be done by internal fixation with plate, intramedullary (IM) nailing or external fixator. The decision of choosing what